

## BROADBAND INTERFERENCE CANCELLATION

### Abstract

A method and apparatus are provided for broadband cancellation of  
5 interference signals. A signal transmitted on one communication path acts as an  
interference signal to a receiver on a second communication path in the system. In  
an embodiment, a signal transmitted from an antenna using one wireless standard, or  
protocol, acts as an interference signal for another antenna, co-located in the same  
system, using another wireless standard, or protocol, and operating in the same or  
10 nearby frequency bands. A time delay is applied to a signal sampled from the  
interference signal to provide substantially broadband cancellation of the  
interference signal. The sampled signal may be attenuated to match the amplitude  
of the interference signal on the second communication path. Coupling of the  
sampled signal from one communication path to the other communication path can  
15 provide an 180° phase shift to the sampled signal.

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